



Bexar Wire

San Antonio Radio Club
W5SC



2023, No. 08

August 2024

Radio Fiesta 2024 After Action Paul Guido, N5IUT



Thank you all very much for coming out and supporting Radio Fiesta in San Antonio. The attendees, vendors and volunteers helped make this a success. Aubrey, Chairman of the event, did a great job bringing it all together!



I hope that everyone visited the safety demonstration from CPS Energy. The benefit of having and using fire, gas (natural and propane) and carbon monoxide detectors far out way the expense. Two years ago, I attended a funeral for a friend

and co-worker that lost her life in a house fire. There was no working fire detector in the house at the time of the fire. Check your fire alarms!

Knowing what could happen if an antenna comes into contact with a 6000 volt power line is very different from actually seeing,

hearing and smelling it. Here are two videos from the demonstrations on Saturday. https://www.youtube.com/watch?v=f0H-JsF_vOA <https://www.youtube.com/watch?v=2yyH-Ti6pQg> It was amazing to see the crew from CPS Energy. We all need to be safe around power lines.

--It was great to see Jeff N5MNW from Austin, please subscribe to his newsletter to keep up with activities in Texas. <https://austinhams.org/swapnet/>

--Ruth, KE5MHJ, represented Bexar County ARES, please join up! For more information check out <https://groups.io/g/BexarCountyARES>

--Keith, KD5JGD, President of the Alamo Area Radio Organization had a table at the event. Please join this great group at <https://www.aa5ro.org/>

--The San Antonio Digital Radio Club, the newest organized radio group from San Antonio was well represented. It was a pleasure to meet Alice, KI5ERV, club secretary and the team. Thank you all for attending! <http://www.sadrc.net/>

--Stuart A. Wolfe KF5NIX, the ARRL South Texas Section manager was there. The ARRL is working through some issues right now and Stuart is doing his best to get things back on track. <https://www.arrl.org/groups/view/south-texas>

--We are always happy to host the VHF-FM Society. They held their summer meeting at Radio Fiesta. <https://www.txvhffm.org/>

If you have any suggestions of comments on how we can improve Radio Fiesta, please email me "radioteacher (at) gmail.com".

Continued on Page 5)

The next meeting, August 8, 2024, will be at 7 PM at Blanco BBQ, 13259 Blanco Rd, San Antonio, TX 78216, (210) 251-2602 . Program: Volt-Ohm Meter, Digital or VTVM, use and calibration

PRESIDENT’S RADIOGRAM

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
08	R		N5IUT		San Antonio, TX		August 2024
TO							

Hello South Texas,

In September of 2022, there was an article in QST Hints and Kinks on page 54 for a Single Evening Voltage Reference.

It was built around an Analog Devices AD584 High Precision Voltage Reference Module. This chip is a very precise voltage reference that can be used to check Multimeters and can be used as a foundation for circuits that require such accuracy.

I was able to find a premade circuit that had the needed outputs and another one with precision resistors and capacitors on it. I will bring these to the meeting so you can check your volt and ohm meters (and capacitor values if needed).

Bring and test your own VOM/DMM and test it with the sources we will have at the meeting!

73 Paul, N5IUT

Bexar Wire

Published monthly by:



Paul Guido N5IUT
 President, San Antonio Radio Club
 Jimmie Neff, WJ4M
 Editor
 210-563-2121
jlneffjr@sbcglobal.net

The due date for articles is the **Monday** before the first **Thursday** of the month

Meeting Minutes
7:00 p. m., July 11, 2024
Blanco BBQ, 13259 Blanco Rd., San Antonio, TX 78216

Meeting called to order at 7:04 PM//Pledge of Allegiance//Introductions

Presentation: — Radio Fiesta. Bill Craft, KD2HIQ. Provided overview of the event.

Approval of Minutes of the Last Meeting

There being no additions, corrections, or deletions, minutes were approved with change without objection by unanimous consent.

Officer Reports:

President – Paul Guido, N5IUT – Further update on Field Day. Points have been turned in. Some lessons learned to earn more points next year, e.g., message handling, solar power. Raffle tickets for the scholarship are still available for sale. W5SC FCC license has been renewed. Callsign renewal service is available through W5YI (<https://w5yi-vec.org/index.php/amateur-license-renewals-address-changes>), for those who find the renewal process too troublesome. Trustees update.

Vice President – Lloyd Swartz – KF5ZHW – Volunteer to be interim VP.

Secretary – Jack Bannin, N5JLB – The minutes from club meetings can be found at the w5sc.org website, in the Newsletters section.

Treasurer – Jon April, KI5CSK – Not present. Harold Fleischer reported that Jon had provided up-to-date details on the club's finances.

Chairman of the Board Report – Harold Fleischer, AE5AS – No report. First Thursday in August will be the next Board meeting.

Education and Training – Melvin Brown (KJ5BQV) & Travis Buhler (KI5TXG): No report.

Emergency Communications – Vacant – No report.

Web Site – Bill Craft, KD2HIQ

1. Web Site-
 - a. Posted newsletters
2. Groups.io
 - a. Updated membership list
 - b. Updated calendar
3. Mail chimp- Meeting notice -

4. Twitter
5. Facebook - Meeting notice

Membership – Bill Craft, KD2HIQ – As of: 7/9/24

Paid 142	New Members for 2024		
Mil 6	First	Last	Call
Family Members 18	Ken	Runner	KE5DDT
RF-Free 6	Joe	Underbrink	K5ATR
Fee-VE 22	Ansley E	Johnston	KF5KDE
ARRL Members 101	Wesley	Surber	
	James	Ervin	
Total Membership 195	Dale	Cmaylo	
	Mark	Cowlshaw	

POTA – No report

Newsletter Editor – Jimmie Neff – Newsletter distributed and posted to website on July 10, 2024. Invited members to contribute information, photos, and stories for the newsletter. Deadline is Monday prior to the meeting.

Field Day – Jon April: Not present. Information provided earlier by club president.

Finance and Review – No Report

JOTA – No report.

Centennial Committee – Tom O’Brien AB5XZ – Souvenirs (patches, challenge coins, pins) from the club’s 2019 centennial year are still available.

Radio Fiesta – Aubrey Mason – July 19/20, 2024. Volunteers needed to help at Radio Fiesta. Volunteer sign-up at the w5sc.org website (events/radio fiesta/RF-VOL). Vendors/ticket sales down from years past. Two Baofeng radios will be raffled. Gift certificates will also be raffled. Club table available to members to see a few items.

VE Team – Benny Martinez, NU5P – Not present. Next testing session: July 20 @ Radio Fiesta, 1:30 PM, August 26 @ Leon Valley Library, Oct 28 @ Leon Valley Library.

Register at HamTest@w5sc.org. Other info at W5SC.org click “Getting Started” then “Testing.” Field Day Testing: Spotlight on new members John (KJ5FIA) & Jackie Maldonado, who tested at Field Day this year. John (KJ5FIA) upgraded to General and Jackie passed her technician license. Jackie won the Gray Lester (K5MUG) memorial radio in the technician’s raffle. There were 8 people testing at Field Day. Results were: 1 Extra, 1 General, 6 Technician.

Of course there is no visible price tag on it. I asked for the price, they said \$35. I opened the battery compartment; it was clean with a spare fuse in the holder. I did a physical test of the meter movement not in transit mode and it looked free and clear.

With just a small hesitation, I asked if they would take \$25.** They said yes. For a cherry on top, I asked if anything went with it. They checked and handed me four sets of leads.

These deals do not happen every day, but it is surprising what you will find if you keep your eyes open.

Now that I have this fine VOM, how do I test it? I remembered that I read an article about that in QST. In September of 2022 there was an article in QST Hints and Kinks on page 54 for a Single Evening Voltage Reference.

It was built around an Analog Devices AD584 High Precision Voltage Reference Module. This chip is a very precise voltage reference that can be used to check Multi-meters and can be used as a foundation for circuits that require such accuracy.

I was able to find a premade circuit that had the needed outputs and another one with precision resistors and capacitors on it. I will bring these to the meeting so you can check your volt and ohm meters (and capacitor values if needed).

Bring Your Own VOM (BYOVOM) and test it with the sources we will have at the meeting!

73 Paul, N5IUT, President

**Never pay the first price they give you.



An Expensive Day Mark Julicher, WX3O



This is a recently happened to me

I was watching a late April rainstorm at home in Bulverde when lightning struck somewhere nearby. My house is protected with lightning rods, it might have hit a lightning rod, but I can't be exactly sure. It was not a huge lightning bolt, it just sort of lit up the yard a little.

In any event, the energy entered my house mains. The high voltage passed through an Astron power supply and melted the insulation on the transformer thereby killing the power supply.

The voltage then exited through the negative terminal of the Astron and went through the power cable to my Yaesu FTdx 3000. Not only did the 25-amp fuse on that negative line blow, but also the actual fuse holder melted. The voltage exited through the Yaesu, I don't know where exactly, but the radio ceased to function. Sent the radio in for repair, but every circuit card was bad - beyond economic repair.

I had not disconnected my antenna, but the antenna did not receive a lightning strike nor was the coax damaged at all. Of course, my

external ATU and cross-needle SWR also died.

Now at the same instant, that lightning strike tripped a house circuit breaker that was feeding a 50-amp Tripp-Lite power supply and an APRS station. These were in an entirely different location in my house, but it was the same scenario, the negative power lead of the power supply directed energy to an Alinco two-meter radio and TNC.

The fuse on the radio's negative power lead was blown. I mean BLOWN UP, not just a melted fuse element. Tripp-Lite is dead. Alinco is dead. TNC is dead.

Lastly, a computer monitor was toasted somewhere else in the house. All these devices were on different house circuits. Some other computers were not damaged, I guess that was pure luck.

Beyond just disconnecting antennas, I think all this equipment would have needed to be unplugged from the mains to prevent this \$3,000 event. It could have been worse I suppose. Four years ago, lightning struck my roof and started a fire -- which is why I have lightning rods in the first place.

73,

Mark Julicher

(Editor's Note: I, too had an experience with a nearby lightning strike that did not hit my house nor antennas. The pulse was strong enough to melt the insulation in the 2-meter vertical outside. It went through the top of the computer leaving a black mark, took out my TNC, two two-meter radios, two Astron power supplies and my ICOM IC-735 radio. It also damaged the stereo receiver upstairs.

The antenna was grounded, but that didn't stop anything.

I remember a meeting presentation on lightning protection. Maybe something like that would have helped. Bottom line, if lightning strikes anywhere near, you will likely lose something. Hopefully not your life. Disconnect antennas and power when lightning storms are forecast. WJ4M)

The 2024 Robert A. Rodriguez Scholarship Fundraiser is here! 5 chances to win hot selling Yaesu Radios. Only 400 tickets sold @ \$25 each. Drawing is November 14, 2024 at the club meeting.

Uranium Glass in Power Vacuum Tubes

Tom O'Brien, AB5XZ

Vacuum tubes made before about 1945 were constructed of glass envelopes (like light bulbs) and metallic elements (grids, plates, filaments, cathodes). Usually, a tube depended for proper operation on a vacuum contained within the envelope. The weak points in the envelope were the several seals where wire leads penetrated through the glass.

When a tube was in operation, the filament was heated to glowing hot, and that heat radiated out to the cathode, grid, and plate, and thence to the glass envelope. Each time the filament was turned on or off, the glass-to-metal seals would expand and contract, applying stress each time.

Sometime prior to 1940, the manufacturers of power vacuum tubes found that adding intermediate seals of Uranium glass between the borosilicate (pyrex) glass and the tungsten wires would help by moderating the thermal expansion and contraction.

Typically, the wires that passed through the glass were *tungsten*, with a coefficient of thermal expansion (CTE) of about 6. The *borosilicate* glass has a CTE of 4. *Uranium* glass has a CTE which falls midway between that of *borosilicate* glass and tungsten wire. The result is a lower CTE for the joint, and a more reliable power tube.



Under room light. Tube is Eimac 25T triode with heat sink plate cap



Under UV light. Tube is Eimac 25T, with heat sink plate cap. Uranium glass glows green.

Field Day Data

President Paul Guido, N5IUT, has compiled data from past field days. The bands were not too cooperative but with 8 transmitters we did score more points than years past, everyone had a good time. The barbeque held out and breakfast tacos were welcomed by the overnight crew. The San Antonio Radio Club combined with the Alamo Area Radio Organization (AARO) and used their callsign, AA5RO for Field Day. We had a much larger turnout, more transmitters than usual. Thanks again to the Shavano Park government for letting us use the pavilion and facilities. Thanks for the AARO guys who made it a great effort, and let us use their call when ours was not available temporarily. If you need an explanation, check the next story by Bill Craft, KD2HIQ.

Year	QSO's	Power	Participants	Score	Transmitters	Class	Section	Notes
2024	307	2	41	2682	8	A	STX	With AA5RO as a call. Combined Clubs
2023	302	2	46	2148	4	A	STX	
2022	173	2	21	1662	4	A	STX	
2021	132	2	45	1488	4	A	STX	
2020		2	6	1305		A	STX	Pandemic Aggergate Score, N5YBG, AA5CF, WB5DRI, WJ4M, N5IUT
2019	126	2	39	1444	4	A	STX	
2018	149	2	10	1508	4	A	STX	
2017	259	2	35	1766	4	A	STX	
2016	278	2	18	1870	4	A	STX	
2015	325	2	37	1998	4	A	STX	
2014	407	2	34	2480	5	A	STX	
2013	504	2	23	2472	4	A	STX	
2012	595	2	21	2328	4	A	STX	

Tips For Renewing Your License

Bill Craft, KD2HIQ

MAKE SURE TO CREATE NEW LOGIN FOR CORES(if you haven't already)- It is not the same password you used for FRN. Be prepared to create a 12 character password and save it for future reference. It's the government, what else can I say.

File a renewal application online directly with the FCC using their ULS License Manager System. Before you renew your license, if you haven't already done so, you will need to create a new FCC CORES username account and link your FCC Registration number (FRN) to this new account. This new account is required to pay the \$35 FCC application fee. As of April 2022, the FCC charges a \$35 fee to renew amateur radio licenses. If you haven't already, see the steps

below on creating a new CORES account. After completing the renewal application, the license manager system will automatically direct you to the CORES system. Log in and pay the fee.

The license holder will receive an email from the FCC with a link to their official license or, in very rare instances, an explanation for why the application was dismissed or denied. The license link will be valid for 30 days. Print out the license or download the license PDF to your computer.

FCC CORES new username account instructions:

If you haven't already created a CORES account, you must register a username (your email address) and a password. Visit the FCC CORES website to set up your account. If you don't know your FRN, you may search for it on that web page. You will need your FRN for the next step.

Log into your new account and click the first option, ASSOCIATE USERNAME TO FRN.

Enter your FRN and comment. An example of a comment is "Associating FRN."

Click CONTINUE.

If you know your password to your FRN, enter it now. This password will likely be different from the one used for your username account. If you do not know your FRN password, choose the "Forgot FRN Password" option. Please refrain from guessing your password more than twice, as repeated failed attempts may result in being locked out of your account. You can also call the FCC at 877-480-3201 to have them reset your password for you.

Once you have completed these steps and your FRN has been associated with your username, the site should bring you back to the main menu. Log out.

APPLY FOR YOUR LICENSE RENEWAL. File your renewal application using the FCC ULS License Manager System and pay the \$35 application fee.



Volunteer Examiners at Work



From Bennie Martinez, NU5P VE Coordinator

Register at HamTest@w5sc.org

Other info at W5SC.org click "Getting Started" then "Testing."

There were 12 people testing at Radio Fiesta

The schedule for the rest of the year is:

August 26 Leon Valley Library

Oct 28 Leon Valley Library

December To be announced.



*New Technician
Radio Winner*

Photos From Radio Fiesta 2024



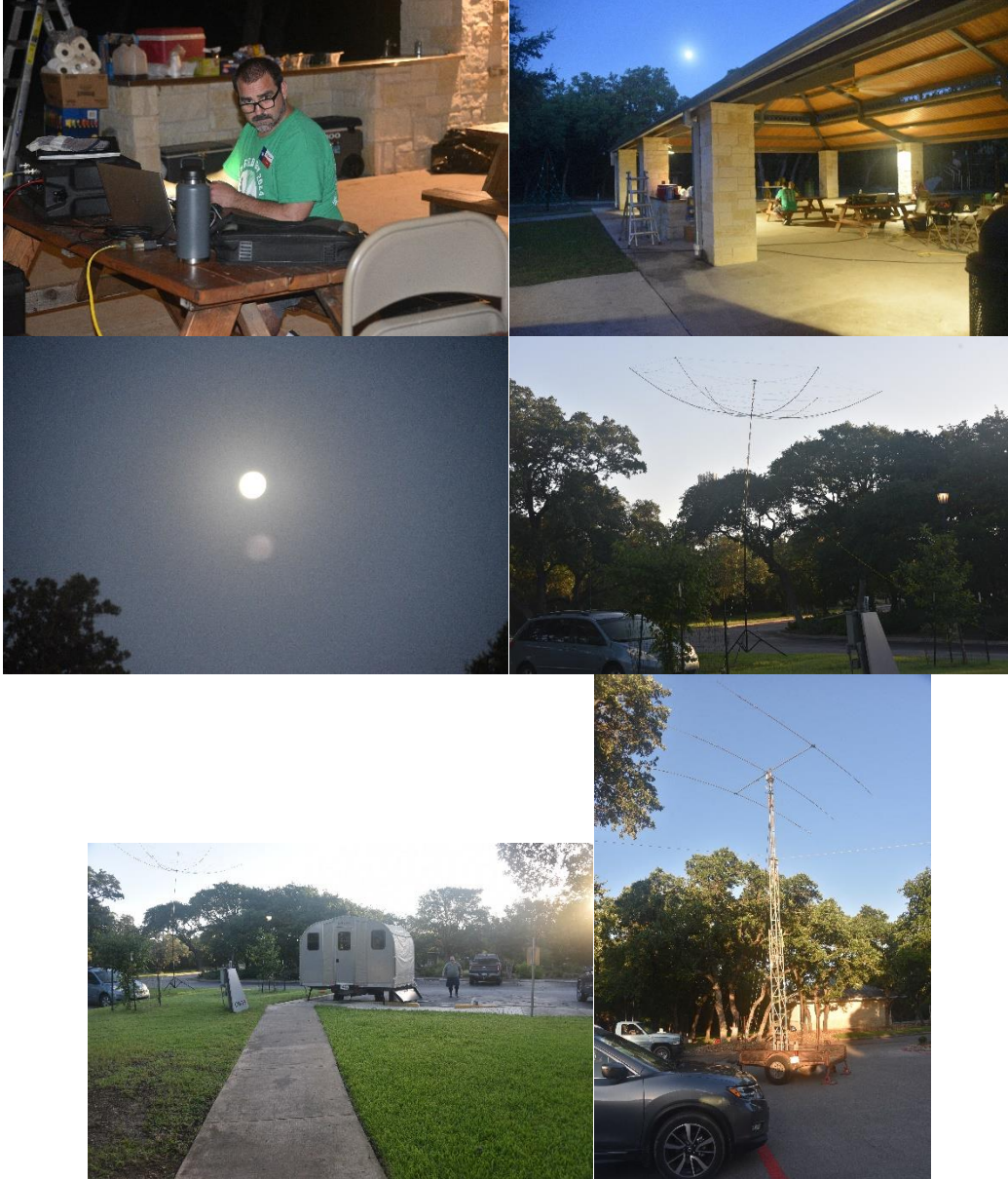
Photos from Field Day















SARC has had a Groups.io. Its name is saradioclub.

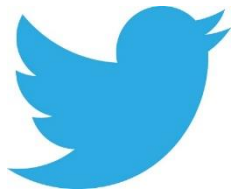
If you haven't signed up for group.io, you should. Groups.io is our primary email messaging method to all club members. It is FREE for all members.

Several members have asked where are the notices, schedules and codes for Zoom meetings?

1. The groups.io calendar has a schedule of Zoom meetings and access codes.
2. The calendar can be accessed directly from the club web site <https://w5sc.org/events-calendar/> NOTE: it is the same groups.io calendar.

The saradioclub Group.io is being used to publicize SARC business meetings. It can be used for other things like promotion of VEC testing and classes. Members of the saradioclub Group.io can and have asked each other technical questions or sought assistance.

The saradioclub Group.io is a closed group. To become a member, go to saradioclub.groups.io. (You may need to have a Groups.io account.) You will then need to select *Apply for membership in this group*. This generates a message. SARC members can expect approval to join the saradioclub Group.io in probably less than 24 hours.



Reminder: there are two active X (Twitter) accounts for the San Antonio Radio Club. They are @SARadioClub and @ARadioFiesta.

The @SARadioClub is being used to publicize SARC meetings. It can be used for other things like promotion of VEC testing and classes.

When work again commences the @ARadioFiesta will be used.

SARC members are encouraged to follow both Twitter accounts.

SARC Facebook



There is a San Antonio Radio Club – SARC (@saradioclub) Facebook Page.

The newsletter editor is making posts about SARC meetings and other activities. Any Officer, Committee Chairperson, or member who believes that they have information that should be posted to this page should contact the newsletter editor using the contact information for the newsletter editor on page 2 of this newsletter.

SARC members are encouraged to follow this Facebook Pa

SARC SLACK



There is a San Antonio Radio Club Slack team – w5sc.slack.com.

Slack teams are meant to foster communication between team members. Paul Guido, N5IUT, has established the w5sc.slack.com team for SARC. He has also established some channels. Think of the channels as topical areas.

To join send an email to Paul Guido, N5IUT, at radioteacher@gmail.com. In actuality, any team member already a part of the w5sc.slack.com can invite you, but Paul is known to be on it.

JOTA

Jamboree-on-the-Air, or JOTA, is the largest Scouting event in the world. It is held annually on the third full weekend in October.

JOTA uses amateur radio to link Scouts and hams around the world, around the nation, and in your own community. JOTA 2023 was held at McGimsey Scout Park Cub Pavilion 10810 Wedgewood Dr, Castle Hills, TX 78213.

. Anyone wanting to operate a station next year need to do the BSA Youth protection Training (YPT) and complete BSA Health forms.
<https://www.scouting.org/training/youth-protection/>

License Testing Dates for 2024

SARC does all of its licensing testing as a part of ARRL Volunteer Examiner Coordinator (VEC) organization so all of the Volunteer Examiners in SARC are duly authorized Volunteer Examiners of ARRL's VEC.

Register at HamTest@w5sc.org

Other info at W5SC.org click "Getting Started" then "Testing."

SARC has a website:

w5sc.org

Webmaster: Bill Craft KD2HIQ
Billc851@gmail.com
210-570-0335

Amateur Radio License Classes

For more information, check the club web page, W5SC.org

Radio Fiesta 2024

Radio Fiesta 2025 was at Schertz Civic Center on July 19/20 and was a great success. Looking forward to Radio Fiesta 2025 next year.

Field Day 2024

Field Day exercise, June 27 – 28 at the City of Shavano Park city hall for the twenty first year. It was a great success. Start planning for FD 2025, *where SARC proves they are an eating group with a radio problem.*

Emergency Communications

If you are interested in emergency communications, contact:

Ned Lee, KG5US
RACES Bexar County
210-344-3481 / 210-391-8258

David Rice, NB5K
ARES Bexar County EC 210-367-8623

SARC Meeting Dates for 2024

January 11, 2024
February 8, 2024
March 14, 2024
April 11, 2024
May 8, 2024
June 13, 2024
July 11, 2024
August 8, 2024
September 12, 2024
October 10, 2024
November 14, 2024
December – No meeting

Meetings are normally held at Blanco BBQ, 13259 Blanco Rd, San Antonio, TX 78216 at 7:00 p. m. Room is available at 6:00 p. m. for supper